

#### ABSTRACT

An abrasive tape is supplied to a tape head by a tape supply unit and taken up from the tape head by a tape take-up unit. The tape head presses the abrasive tape against a surface of an object under polish, which is rotated by a rotating unit. A tape head pressuring unit utilizes a vice coil motor, for example. Since the tape head pressuring unit generates a pressuring force for pressuring the tape head using the electromagnetic force, it is able to set a minute pressuring force by controlling a drive signal, and to obtain the fine adjustment of the pressuring force easily by controlling the electric signal. Therefore, it becomes possible to press the abrasive tape against the surface of the object under polish with a desired low pressure.